Virginia’s Oil and Gas Program – Draft Proposed Regulations

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Virginia Department of Mines, Minerals and Energy
State Water Commission
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ROADMAP

- Introduction to DMME
- Brief history of drilling in Virginia
- Brief history of drilling in Taylorsville Basin
- Highlights of Draft Proposed Regulations
ORGANIZATIONAL CHART

DMME

DA = Administration
DE = Energy
DGMR = Geology
DGO = Gas & Oil
DM = Mine Safety
DMM = Mineral Mining
DMLR = Mined Land Reclamation
We enhance the development and conservation of energy and mineral resources in a safe and environmentally sound manner to support a more productive economy.
DMME STRATEGIC PLAN

Goal 1:
- Provide for safe and environmentally sound mineral and energy resource production.

Goal 2:
- Encourage economic development through our customers’ wise management of Virginia’s resources.

Goal 3:
- Enable DMME personnel to perform at their full potential.
DMME PERFORMANCE MEASURES

Percentage of gas and oil sites with no adverse off-site environmental damage
DGO INSPECTION DATA

TOTAL INSPECTIONS

- 4th 12: 1,418
- 1st 13: 10,796
- 2nd 13: 10,855
- 3rd 13: 1,512
- 4th 13: 10,796
- 1st 14: 1,455
- 2nd 14: 10,803
- 3rd 14: 1,455
- 4th 14: 10,912
- 1st 15: 1,423
- 2nd 15: 10,900
- 3rd 15: 1,423
- 4th 15: 10,950

- Total Inspections
- Total Active Permits

DMME
Virginia Department of Mines Minerals and Energy
WHAT IS HYDRAULIC FRACTURING?

- Involves the use of pressurized liquids or gases such as nitrogen to stimulate or fracture rock formations to release the natural gas or oil.

- The composition and volume of fluids used depend on many geological factors.
WHAT IS HYDRAULIC FRACTURING?

- Sand is often pumped in with the fluids to help prop the fractures open.

- Fracturing, along with horizontal drilling, has made previously inaccessible natural gas and petroleum resources producible in economic quantities.

- The application of these technologies has greatly expanded U.S. oil and natural gas production over the past ten years.
Technique has been utilized in the Commonwealth since the 1960s.

Over 8,000 wells have been fracked in Southwest Virginia.

There have been no documented instances of surface or groundwater degradation from fracking in Virginia.
Hydraulically fracked wells in Virginia typically require 0–300,000 gallons of water.

Increasingly, operators are utilizing nitrogen-based foam to frack wells.

By contrast, fracked wells in the Marcellus shale can use 4–5 million gallons of water.
USGS assigned 1.06 trillion cubic feet of gas to the Taylorsville Basin. That’s about 2 ½ times Virginia’s total annual consumption of natural gas.

For comparison, the USGS assigned 410 Tcf to the Marcellus Shale in Pennsylvania, New York, and West Virginia.
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A comprehensive re-write of the regulations began in 2007 and was completed in 2013.

In the fall of 2013, DMME initiated a new regulatory action to review its requirements for drilling.

- Chemical disclosure requirements
- Review of selected industry best practices
- Review to determine if additional requirements are necessary for different regions of the Commonwealth
The Notice of Intended Regulatory Action was published on January 13, 2014.

DMME received over 200 comments during the 30 day public comment period.

These comments supported disclosure of ingredients used in fracturing process.
DMME utilized a Regulatory Advisory Panel (RAP) to assist in reviewing regulations.

The RAP was composed of a wide variety of stakeholders, including:
- Environmental community
- Other state agencies (DEQ, DGIF)
- Local government
- Industry
RAP meetings were open to the public.

- Six meetings were held July 2014 – January 2015
  - 3 in Richmond
  - 2 in Southwest Virginia
  - 1 in King George County

DMME maintains an e-mail list and a dedicated page on its website.
The RAP reached consensus and offered 14 recommendations in areas such as:
- Chemical disclosure of fracturing ingredients
- Groundwater monitoring and testing
- Well Integrity

13 of 14 recommendations were incorporated in the draft proposed regulations.

DMME will issue a guidance document regarding the last recommendation.
The RAP recommended DMME require:

- Disclosure of ingredients used in fracking
- Use of FracFocus to facilitate disclosure
- A separate state registry
- Disclosure of ingredients before well is fracked
- Submission of info classified as trade secrets
REGULATORY UPDATE

Other recommendations include:

◦ Expansion of groundwater testing radius to ¼ mile

◦ Requirement for one post–completion groundwater monitoring test

◦ Allowance for a second test if exceedances are detected
Other recommendations include:

- Requirement for pressure testing of production casing
- Requirement for enclosure of temporary wastewater storage pits
- Requirement for certification of compliance with local land use ordinances.
REGULATORY UPDATE

- The draft proposed regulations are currently under review by the Governor’s Office.

- Upon approval and publication, a 60 day public comment period will commence.

- At least one public hearing will be held during this time.
Once the comment period closes, DMME will review comments and submit final regulations for executive branch review.

It could take 12–18 months before the regulations become effective.
QUESTIONS?

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